



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

December 27, 2013

Chicago Department of Public Health
Bechara Choucair, MD, Commissioner

What is the risk?

Currently, the risk of influenza infection continues to increase and the predominant circulating strain is influenza A (H1N1) pdm09. The percentage of specimens testing positive for influenza has doubled from last week. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. Some [children 6 months through 8 years](#)¹ of age require two doses of influenza vaccine. Chicagoans should ask their healthcare provider or pharmacist about vaccine availability. For those without a healthcare provider or whose healthcare providers do not have the influenza vaccine, call 311 or go to www.chicagoflushots.org to locate the closest City of Chicago clinic or retail pharmacy. [CDC recommends](#)² antiviral treatment as early as possible for any patient with confirmed or suspected influenza who is hospitalized, has severe illness or is at higher risk for serious complications.

Are severe cases of influenza occurring?

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting guidance](#)³. Suspected novel and variant influenza, pediatric influenza-associated deaths, influenza-associated ICU hospitalizations and outbreaks of influenza-like illness in a congregate setting should all be reported to CDPH via [I-NEDSS](#)⁴. For the week of December 15-21, 2013 (week 51), 8 influenza-associated ICU hospitalizations were reported; 7 were positive for influenza A (3 [H1N1] pdm09 and 4 unknown subtype [subtyping not attempted or not all subtypes tested]) and 1 was positive for influenza B. This week last season, there were 27 reported ICU hospitalizations.

Since September 29, 2013, 20 influenza-associated ICU hospitalizations have been reported (**Figure 1**). Among the total ICU hospitalizations reported 18 were positive for influenza A (7 [H1N1] pdm09 and 11 unknown subtype) and 2 was positive for influenza B. Twelve (60%) were female, 10 (50%) were 50 years of age or older, and three (15%) were 4 years of age or younger (median age of 49.5 years with a range of 4 months-83 years). Eight (40%) were NH-White, fourteen (70%) had lung disease (including asthma) and nine (45%) required ventilator support. No deaths have been reported.

How much influenza-like illness is occurring?

CDPH receives data from over 50 surveillance sites across Chicago, which report the total number of patient visits seen weekly, and of those visits, the number with influenza-like illness (ILI) (i.e., fever of 100°F or greater, with cough or sore throat). All hospitals in Chicago that provide emergent care are required to report on a weekly basis the total number of emergency department visits, and of those visits, the number with ILI. For the week of December 15-21, 2013, with 13 hospitals reporting, 3.5% of emergency department visits were due to ILI. Although this is the sixth consecutive week that an increase has been noted, levels are half what they were during the same week last season. (**Figure 2**).

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2013-2014) and previous season (2012-2013), October-May.

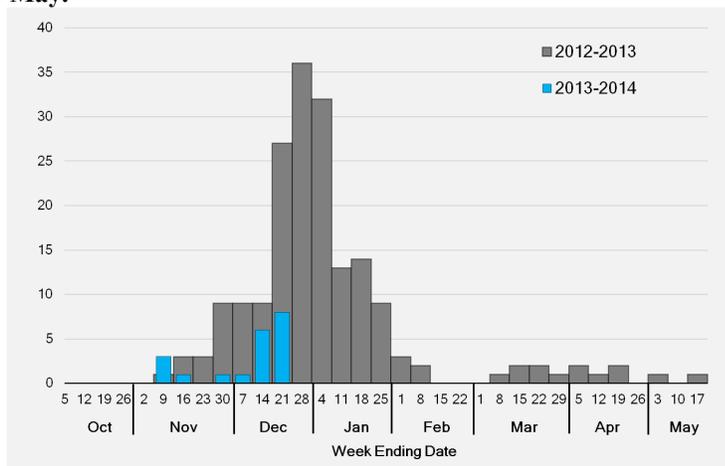
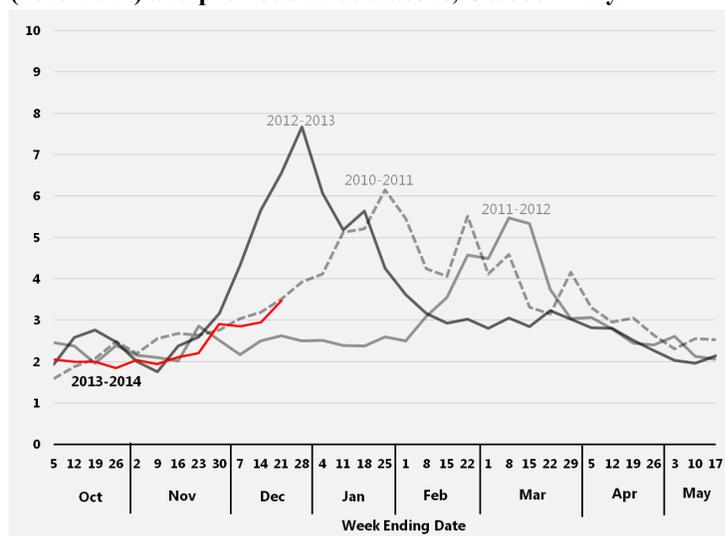


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for current season (2013-2014) and previous three seasons, October-May.



¹www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm#vaccine-dose-children; ²https://www.chicagohan.org/c/document_library/get_file?p_l_id=64868&folderId=39923&name=DLFE-466.pdf; ³[http://www.idph.state.il.us/flu/Influenza Annual Testing and Reporting Memo 09252013.pdf](http://www.idph.state.il.us/flu/Influenza%20Annual%20Testing%20and%20Reporting%20Memo%2009252013.pdf); ⁴<https://dph.partner.illinois.gov/>

ESSENCE is an electronic syndromic surveillance system that utilizes emergency department chief complaint data submitted daily by participating Chicago hospitals. ILI activity is determined solely based on the patient's chief complaint and does not take into account the entire medical record, as the ILI activity reported in Figure 2 does.

Currently, 9 Chicago hospitals submit data to ESSENCE. **Figure 3** shows the percent of the total emergency department visits due to ILI for pediatric patients (3.8%) and adult patients (1.6%) for the week of December 15-21, 2013 plus the ILI activity by age group for the previous season.

Several outpatient clinics and hospital emergency departments throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on the number of patients with ILI seen weekly. From December 15-21 2013, with 45 facilities reporting, 3.9% of outpatient visits were due to influenza-like illness. Currently, ILI activity over three percentage points lower than levels seen during the same week last season (**Figure 4**).

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza subtyping. For the week of December 15-21, 2013, with 5 laboratories reporting, 61 of the 424 (14.4%) specimens tested for influenza were positive. This week last season, 31% of specimens tested were positive for influenza. Among this week's positive specimens, 57 were typed as influenza A (28 [H1N1]pdm09, 3 H3N2 and 27 unknown subtype) and 4 were typed as influenza B (**Figure 5**). Since September 29, 2013, 144 of 4,300 (3.3%) specimens tested for influenza have been positive; 133 typed as influenza A (84 [H1N1]pdm09, 3 H3N2, and 46 unknown subtype) and 11 typed as influenza B.

Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](#)⁵ report provides national updates and trends related to the intensity of influenza activity across the United States, as well as detailed information on antiviral resistance, severity of illness, and other topics. Updates specific to [Illinois](#)⁶ and [Suburban Cook County](#)⁷ are also available online. Current and archived issues of the *Chicago Flu Update* can be found on the CDPH website section [Current Flu Situation in Chicago](#)⁸. The Metropolitan Chicago Healthcare Council (MCHC) and CDPH recently released "[Stop the Spread: A Health Care Guide to Influenza Preparedness](#)"⁹. This report provides an overview of influenza, its impact on public health and how hospitals can prepare for, mitigate the impact of and respond to influenza infections and outbreaks.

Figure 3. Percent of emergency department visits attributed to influenza-like illness based on chief complaint data submitted to ESSENCE, Chicago, by week, for current season (2013-2014) and previous season (2012-2013), October-May.

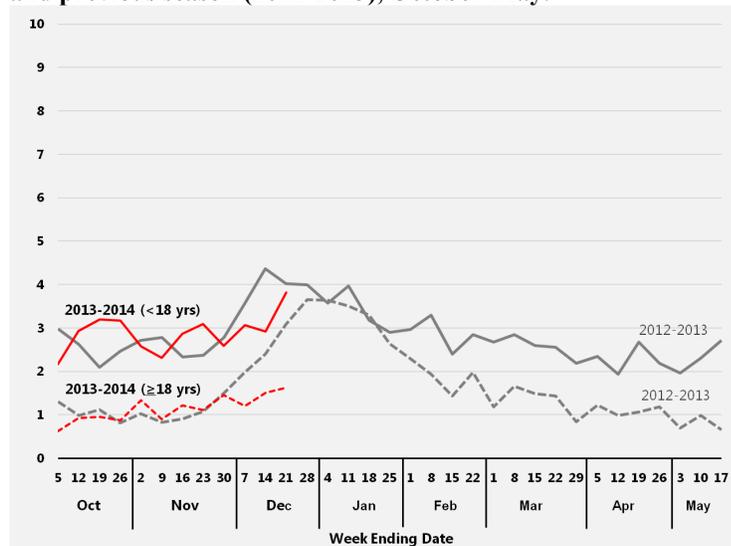


Figure 4. Percent of medically attended visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for current season (2013-2014) and previous three influenza seasons, October-May.

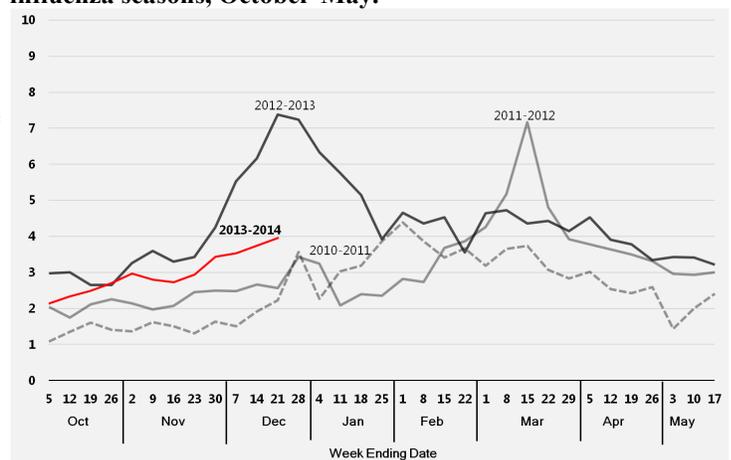
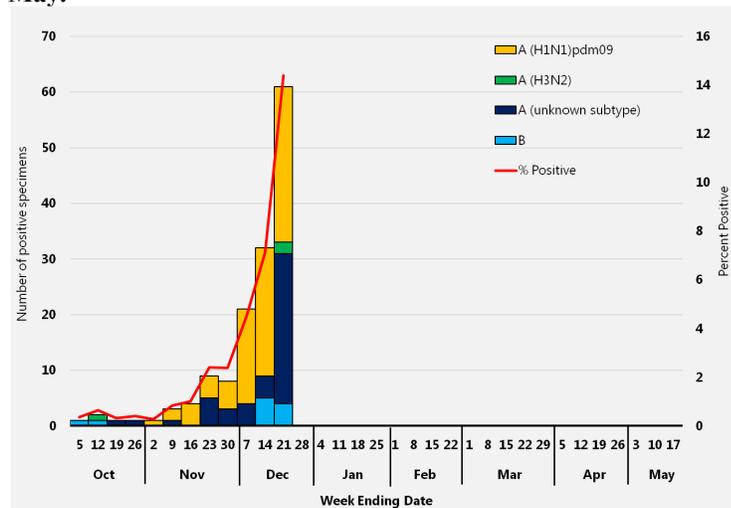


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2013-2014) October-May.



⁵<http://www.cdc.gov/flu/weekly/index.htm>; ⁶<http://www.idph.state.il.us/flu/surveillance.htm>; ⁷<http://www.cookcountypublichealth.org/data-reports#Influenza>; ⁸http://www.cityofchicago.org/city/en/depts/cdp/supp_info/influenza/current_flu_situationinchicago2011.html; ⁹http://www.mchc.com/EWEB/upload/MCHC_Influenza_2013.pdf